

QUICKTRONIC® POWERSENSE® T8 Dimming Universal Voltage

High Efficiency Series

Lamp / Ballast Guide

32W T8 - SYLVANIA OCTRON®
1-lamp QTP1x32T8/UNV DIM
2-lamp QTP2x32T8/UNV DIM
3-lamp QTP3x32T8/UNV DIM
4-lamp QTP4x32T8/UNV DIM

Primary Lamp Types

F032, FB032 & FB031

Also operates:

F025, F017, FB024 & FB016

Key System Features

- Industry's first ballast that combines dimming inputs from 0-10V and/or two-wire AC dimming providing maximum flexibility.
- **POWERSENSE compatibility with low voltage and power line dimmers**
- **High Efficiency**
- NEMA Premium Ballast compliant
- Lamp Detection Technology
- Universal voltage (120-277V)
- 100 - 5% Dimming Range
- PROStart® Programmed Rapid Start
- Anti-flash circuitry - turns on in dimmed mode
- Lightweight and low profile
- Operates at >42kHz
- QUICK 60+ ballast and lamp warranty



Application Information

SYLVANIA QUICKTRONIC POWERSENSE ballast

is ideally suited for:

- Occupancy sensors
- Daylight harvesting
- Energy management
- Load shedding
- Commercial
- Retail
- Hospitality
- Institutional
- Schools
- New construction
- Retrofit

SYLVANIA QUICKTRONIC High Efficiency, POWERSENSE T8 ballasts offer several advantages:

- 1. Wide Dimming Range:** operate linear fluorescent T8 lamps over a 100-5% dimming range and provide true versatility in controls selection.
- 2. Industry's Most Adaptable Dimming Ballast:** ballasts feature micro-controller technology for compatibility with:
 - low voltage controls
 - power line dimmers
 - any line voltage from 120V to 277V
- 3. Unmatched Performance:** patented lamp detection technology that virtually eliminates variations in brightness from lamp-to-lamp and provides uniform lighting throughout the dimming range. At light levels of >75% unnecessary lamp-coil power is turned off, delivering energy efficiencies comparable to non-dimming Instant start electronic ballast. This technology also eases installation and troubleshooting by recognizing failed lamps, faulty wiring or loose

System Information

QUICKTRONIC POWERSENSE ballasts operate from standard low voltage (0-10VDC) fluorescent controllers or compatible 2-wire power line fluorescent dimmers, making them ideal for individual office lighting or automated building applications, both in new construction and retrofit projects.

For the individual office or conference room, installation can be streamlined by using a 2-wire power line dimmer; eliminating the need for additional control wires.

For more advanced systems, such as daylight harvesting or building automation applications, standard low voltage devices (0-10VDC, Class 1 or 2) are used to control the lighting system. In this daylight harvesting example, each lighting fixture (or fixture row) is controlled by its own photosensor; regulating the light output to



Electronic T8 Fluorescent Controllable Lighting Systems



connections, and shutting down. When the problem is corrected, the system restarts automatically.

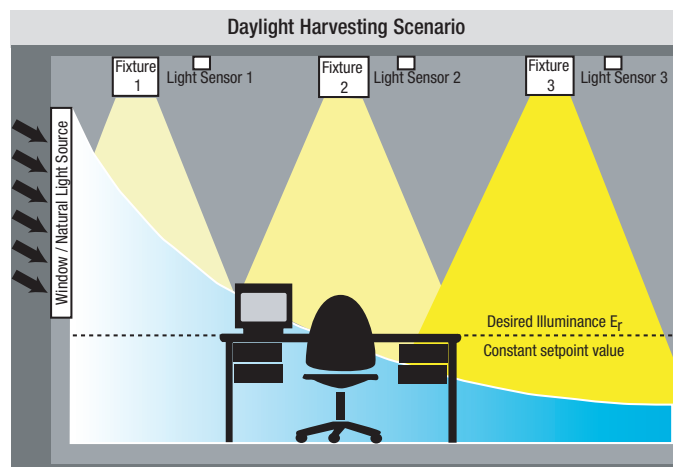
- 4. NEMA Premium Ballast (NPB) program compliant.** The NPB program promotes the use of high efficiency T8 electronic ballasts by meeting or exceeding the Ballast Efficiency Factors, (BEF) established by the CEE, (Consortium for

Energy Efficiency). For additional information on this program go to: www.cee1.org or www.nema.org

Setting the standard for quality, QUICKTRONIC POWERSENSE ballasts are covered by our QUICK 60+® warranty, the first and most comprehensive lamp & ballast system warranty in the industry.

compensate for changes in natural daylight. Depending upon the specific application, energy savings of up to 60% compared to fixed output T8 electronic systems can be realized.

All QUICKTRONIC POWERSENSE ballasts include a line voltage protection circuit, which protects the ballast in the event that line voltage is inadvertently applied to the low voltage control inputs.



SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

QUICKTRONIC® POWERSENSE® Controls Information

Controls Manufacturer	Fluorescent Powerline Controllers	0-10 VDC Controllers	Photo Cells	Occupancy Sensors	Building Management Systems
SYLVANIA ELOGIC™ Controls 1-800-LIGHTBULB www.sylvania.com	X	X	X	X	
Hunt Dimming 970-484-9048 www.huntdimming.com	X	X	X	X	X
Lehigh Electronic Products 610-395-3386 www.lehighdim.com	X	X	X	X	X
Leviton Lighting Controls 800-824-3005 www.leviton.com	X	X	X	X	
Lightolier Controls 800-526-2731 www.lolcontrols.com	X	X	X	X	X
Lithonia Controls 800-533-2719 www.lithonia.com	X	X	X	X	X
Lumisys 800-241-9173 www.lumisys1.com	X	X			X
PCI 800-767-3674 www.pcilightingcontrols.com		X	X		
Sensorswitch 1-800-PASSIVE www.sensorswitch.com			X	X	
Siemens Energy & Automation 800-427-2256 www.sea.siemens.com					X
Starfield Controls 303-427-1661 www.starfieldcontrols.com		X	X	X	X
The Watt Stopper, Inc 800-879-8585 www.wattstopper.com			X	X	

Please contact controls manufacturers to order/specify controls. For the latest controls list go to www.sylvania.com
Also for more information, check out the LCA (Lighting Controls Association) site: www.aboutlightingcontrols.org

WARNING:

Install and wire these ballast and controls in accordance with the National Electrical Code (NEC), all applicable Federal, State and local electrical codes, as well as the specific instructions provided with the compatible control that you purchased.
Installation should be performed by qualified personnel only.

These instructions are guidelines only. Installation may vary for different controls/fixtures/applications. Be sure to follow the control instructions and all applicable codes and standards when installing dimming systems.

Please contact controls manufacturer listed in the OSRAM SYLVANIA Inc. controls cross reference for compatible controls and instruction wiring

NOTES: 1. Dimming ballasts source < 0.5mA (0-10VDC control input).
2. Powerline controls must be rated for the type (e.g. Fluorescent Phase-control) and size (e.g. 600W, 1000W, 1500W & 2000W etc.) of the connected load. Do NOT use incandescent powerline controls; incandescent dimmers are not rated for fluorescent loads and are NOT compatible with POWERSENSE ballasts.

Control Specifications/model numbers may change.

Please consult manufacturers listed for their latest control models and to order their controls.

T8 POWERSENSE

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Controls Guide



Contact the companies listed for their 2-wire Fluorescent/Powerline controls and/or 0-10V controls information.

T8 POWERSENSE Dimming Ballast
50705 QTP 1x32T8/UNV DIM-TC
50707 QTP 2x32T8/UNV DIM-TC
50714 QTP 3x32T8/UNV DIM-TCL
50716 QTP 4x32T8/UNV DIM-TCL

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National Customer
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(1-800-544-4828)
www.sylvania.com

Specifications subject to change without notice.

SEE THE WORLD IN A NEW LIGHT



SPECIFICATION DATA

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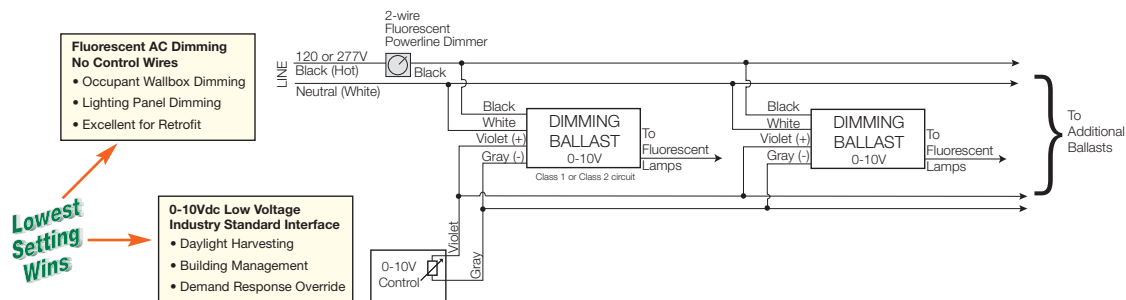
T8 POWERSENSE

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QUICKTRONIC® POWERSENSE® T8 Dimming UNV - Dimming Control Wiring Examples

Industry's 1st Ballast that allows POWERLINE Fluorescent Control **AND** 0-10Vdc Control Input simultaneously

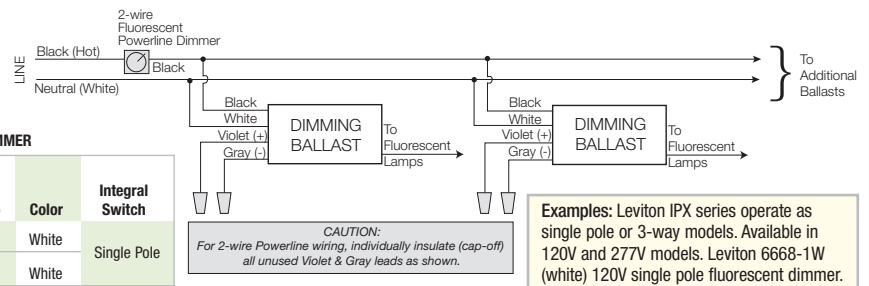
2-wire Powerline **AND** 0-10Vdc Control with POWERSENSE Ballasts



Wallbox Style 2-wire Powerline Control Wiring Example

Powerline Control Specs:
Specification-grade controls are available for 120V or 277V operation of controllable analog electronic fluorescent ballasts. Controls must be suitably rated for both the type (e.g. Fluorescent Phase-control) and size (e.g. 600W) of the connected load.

2-wire Powerline Control with POWERSENSE Ballasts



ELOGIC™ MANUAL CONTROL SLIDE FLUORESCENT PHASE CUT DIMMER

Item Number	OSRAM SYLVANIA Description	Maximum Input Current (A) (# of gangs)			Input Voltage (V)	Color	Integral Switch
		Single	Double	Triple			
45045	ELMC-SL-FLPCWALL/120-WH	5.0A	4.5A	4.0A	120	White	Single Pole
45046	ELMC-SL-FLPCWALL/277-WH	2.2A	2.0A	1.7A	277	White	

Wallbox Style 0-10V Control with Power Switch Wiring Example

0-10V DC Control with POWERSENSE Ballasts

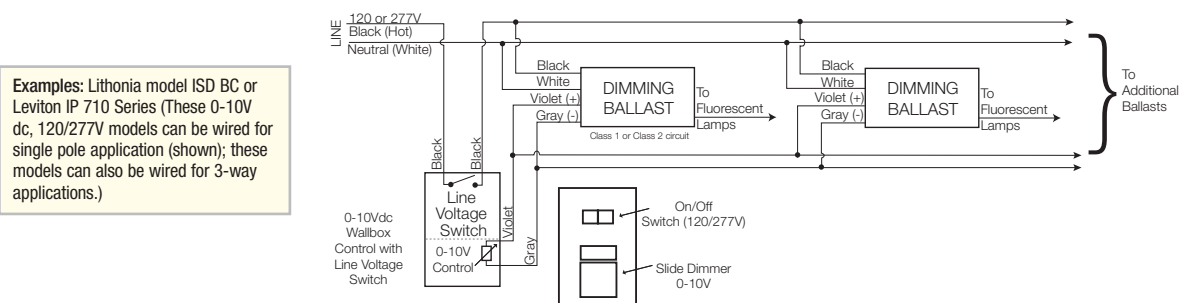
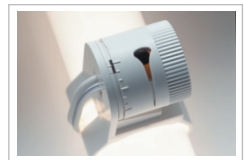
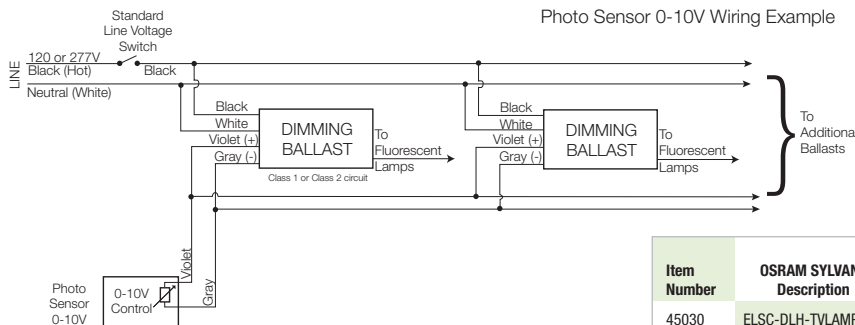


Photo Sensor 0-10V Wiring Example

0-10V DC Control with POWERSENSE Ballasts

Photo Sensor 0-10V Wiring Example



ELOGIC DAYLIGHT SENSOR ORDERING INFORMATION

Item Number	OSRAM SYLVANIA Description	Type	Ballast Control Method	Output Voltage (VDC)	Max. Input Current (mA)	Lamp Type
45030	ELSC-DLH-TV/LAMP/BUS	Sensor & Control for Daylight Harvesting	Analog	0-10V	6	T8 or T5 or T5HO

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the system solution®

POWERSENSE
WIRING & CONTROLS

SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

High Efficiency Electronic T8 Fluorescent Controllable Lighting Systems



Item Number	Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	Initial System Lumens	Input Power (Watts)	System Efficacy (lm/W)	BEF ¹
50705	QTP 1x32T8/UNV DIM-TC	120-277	0.27/0.12	F032XP	3000	1	0.88 0.05	2640 150	30 8	88	2.93
50707	QTP 2x32T8/UNV DIM-TC	120-277	0.54/0.24	F032XP	3000	2	0.88 0.05	5280 300	59/57 14	89/93	1.54
50714	QTP 3x32T8/UNV DIM-TCL	120-277	0.73/0.30	F032XP	3000	3	0.88 0.05	7920 450	87/84 20	91/94	1.05
50716	QTP 4x32T8/UNV DIM-TCL	120-277	0.96/0.40	F032XP	3000	4	0.88 0.05	10560 600	114/110 27	92/96	0.80

Products are all 10-pack. 1: Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (note: calculation based on lowest wattage value)

Dimensions:

1 & 2 lamp enclosure

Overall: 9.5" L x 1.68" W x 1.0" H (241 x 43 x 25 mm)

Mounting: 8.90" (226 mm)

Weight: 1.1 lbs each (500 g)

3 & 4 lamp enclosure

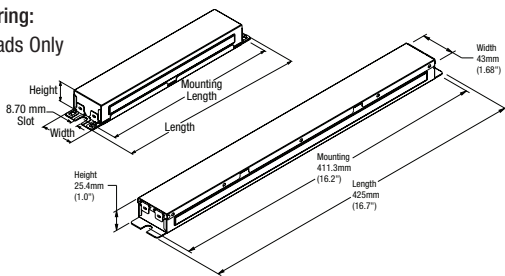
Overall: 16.7" L x 1.68" W x 1.0" H (425 x 43 x 25 mm)

Mounting: 16.2" (411 mm)

Weight: 2.1 lbs each (950 g)

Wiring:

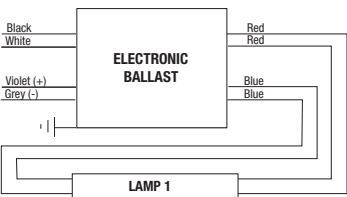
Leads Only



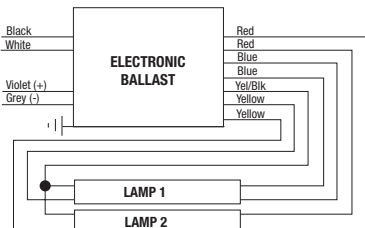
Installation Notes

Output Wiring: Lamp wiring for dimming ballasts can differ significantly from non-dimming ballasts and from other manufacturers dimming ballasts. Take care to connect lamp lead wires as shown on the applicable ballast diagram. **Lamp Seasoning:** For optimal performance, fluorescent lamps may require seasoning for up to 12 hours prior to low temperature starting & low level dimming. Refer to NEMA LSD 23-2002 Lighting Systems Division: Recommended Practice — Lamp Seasoning for Fluorescent Dimming Systems

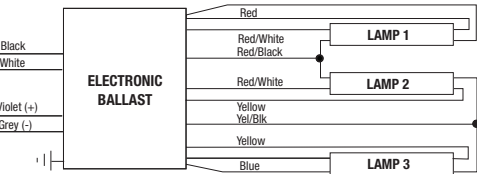
1 lamp



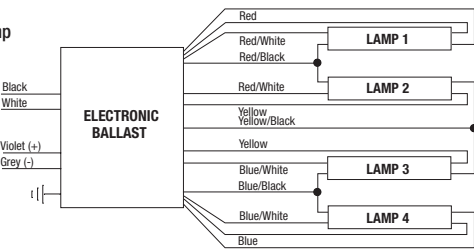
2 lamp



3 lamp

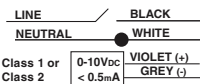


4 lamp

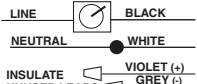


Input & Control
Wiring Options:

LOW-VOLTAGE CONTROL



POWERLINE CONTROL



Item Number **50707** QTP 2 x 32T8 / UNV DIM-TC System Type - DIMMING/Case Size
QUICKTRONIC PROFESSIONAL Line Voltage (120-277V)
Number of Lamps (1, 2, 3, 4) Primary Lamp Wattage

T8 POWERSENSE®

High Efficiency

Performance Guide

Data based on SYLVANIA OCTRON® lamps shown. QUICKTRONIC® POWERSENSE ballasts are also compatible with other manufacturers equivalent lamp types that meet ANSI specifications, including F17, F25, F32 and the U-Bend equivalent lamps.

Specifications

Data based on F32T8

Starting Method: Programmed Rapid Start
Circuit Type: Series
Lamp Frequency: >40 kHz
Lamp CCF: Less than 1.7
Starting Temp: 50°F/10°C minimum for OCTRON T8 lamps
Input Voltage: 120-277V, ±10%
Input Frequency: 50/60 Hz
THD: <10% @ Full Output
Power Factor: >98% @ Full Output
UL Listed Class P, Type 1 Outdoor
CSA or C/UL Certified
70°C Max Case Temperature
FCC 47CFR Part 18 Non-Consumer
Class A Sound Rating
ANSI C62.41 Cat. A Transient Protection
Remote mounting (Max. wire length from ballast case to lampholder) up to 8 feet

Control Information

QUICKTRONIC POWERSENSE ballasts are compatible with a wide range of low voltage (0-10VDC) and power line fluorescent controllers available from various manufacturers. Low Voltage Control Specs: Ballast will source up to 0.5mA for 0-10VDC control purposes. May be wired as a Class 1 or Class 2 circuit—consult Local and National Electrical Codes. Power Line Control Specs: Specification-grade fluorescent controls are available for 120V or 277V operation of controllable analog electronic fluorescent ballasts. Controls must be suitably rated for both the type (e.g. Fluorescent Phasecontrol) and size (e.g. 600W) of the connected load.

System Life / Warranty

QUICKTRONIC products are covered by QUICK 60+®, a comprehensive lamp and ballast system warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

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